

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-18 are presently active in this case. Claims 1, 7, 8, and 14 having been amended by way of the present Amendment.

In the Official Action Figures 7-10 were objected to requiring correction to label Figures 7-10 as --PRIOR ART--. Claims 1-18 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-18 were rejected under 35 USC §102(e) as being anticipated by Hauser et al.

First, in response to the objection to Figs. 7-10, submitted herewith are drawing replacement sheets labeling Figs. 7-10 as --PRIOR ART--. An additional drawing replacement sheet replacing Fig. 6B is attached, in order to correct the spelling of the word --DOES--in steps ST25, ST27. No new matter has been added.

In response to the rejection under 35 USC §112, second paragraph, Claims 1, 8 and 14 have been amended to correct the noted informalities and thereby to clarify the claimed invention. In view of these changes, which are not believed to raise a question of new matter, the outstanding rejection under 35 USC §112, second paragraph, is believed to have been overcome. If the Examiner disagrees, the Examiner is invited to telephone the undersigned, who will be happy to work with the Examiner in a joint effort to derive mutually satisfactory claim language.

Turning now to the rejection on the merits, it is believed that a brief review of the claimed invention would be helpful.

Amended Claims 1, 8 and 14, which correspond to FIG. 5 and ST1-6 of FIG. 6, are directed to a queue control device which includes a first queue including first elements, and a second queue including second elements, wherein a head address of the second queue is stored in a tail element of the first elements included in the first queue, and a tail address of the first queue is stored in a tail element of the second elements included in the second queue. With such a structure, a plurality of queues can be controlled as a single queue, thereby preventing an increase in storage capacity.

On the other hand, Hauser et al. discloses a queue control device for an ATM. FIG. 4 of Hauser et al. discloses a cell buffer 128 which stores an incoming cell supplied through a cell buffer interface 310, a cell queue manager, and a pointer RAM 132 including a pointer list. The Hauser et al. embodiment shown in FIG. 6, which corresponds to the admitted prior art technique shown in FIG. 8 of Applicants' disclosure, includes queue 1, queue 2 and queue 3. However, these plurality of queues are independent, and are not controlled as a single queue, as in claims 1, 8 and 14. As a result, the structure disclosed in FIG. 6 of Hauser et al. has the following problems:

- (1) In order to find the head of queue 2, the whole linked list of queue 1 must be traced.
- (2) A different descriptor region must be provided for queue 2.

Thus, in the Hauser et al. device, because the whole linked list of queue 1 must be traced, it takes many clock cycles to find the head of queue 2, and because a different descriptor region must be provided for queue 2, it becomes necessary to provide a descriptor exclusively for queue 2.

In contrast, the claimed control device stated in Claims 1, 8 and 14 advantageously does not require the descriptor region of queue 2, and does not take many clock counts to

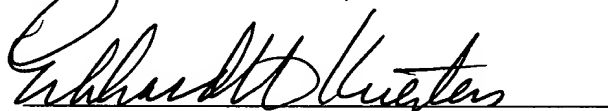
detect the heads and tails of queues 1 and 2. As shown in FIG. 10, the control device of Claims 1, 8 and 14 becomes especially effective in a system that requires a large storage area.

Accordingly, in view of the above explanation, it is respectfully submitted that Hauser et al. in no way anticipate or obviate the subject matter stated in Claims 1-18, and that Claims 1-18 therefore patentably define over Hauser et al.

Consequently, in view of the present amendment and in light of the above comments, it is respectfully submitted that each ground of rejection has been overcome and that the present application is in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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